

Fiscal Year 2008-2009 Annual Report

Washoe-Storey Conservation District

September 30, 2009

Major activities undertaken and performed in this fiscal year are:

1. Crane Ditch Clean-Up Project
2. Storey County Noxious Weed Mapping, Monitoring and Education
3. Hidden Meadows Steamboat Creek Restoration Appraisal Study
4. Finalization of the Jumbo Grade Project
5. Development Plan Reviews
6. Capacity Building

Crane Ditch Clean-Up Project:

The project addressed the known problems in and around the segment of Crane Ditch that travel through and around Curti Ranch Units 3-9 between Highway 342 and Steamboat Ditch. These problems were identified by the LMA Curti Ranch II Management Association, the City of Reno and local residents.

This segment of Crane Ditch was choked with debris and trash. The embankments were also eroded and destabilized, and the borders of the adjacent bike path were heavily littered with pet waste. Infrastructure was constructed between 2004 and 2007 in Units 3 – 9, and the storm drains empty directly into the ditch with none of the water quality treatment which is now required by the City of Reno LID Ordinance in 2008 for new development and redevelopment.

Untreated runoff from the streets of Curti Ranch (and all urban runoff) contained pollutants at least some of the time in the form of nutrients, pathogens, hydrocarbons, toxic organics and sediments from sources such as lawn care (fertilizers, pesticides and mulches), animal waste, detergents, vehicle fluids and hydrocarbon deposition.

Phase 1 of this project was funded by a grant from the Truckee River Fund in addition to matching funds from the Curti Ranch II Management Association LMA, and consisted of seven components: sampling and analysis for pollutant sources, clean up and removal of debris, erosion control, riparian restoration and revegetation, infrastructure to mitigate future pollution, LID treatment retrofit design, install and assessment at two outfall locations, community outreach and education, and LID features maintenance and ongoing waste removal program.

Phase 1 of the project addressed the pollutants entering the Crane Ditch by providing for the design and implementation of two models of Low Impact Development (LID) water treatment structures or features. Two outfall locations were retrofitted in compliance with the new City of Reno LID Ordinance in the form of two of the three following types of structures: wet vault, media filtration system or landscape filtration system. The effectiveness of the retrofit was evaluated and modified when necessary to create LID retrofit solutions for existing communities in the Truckee Meadows.

Storey County Noxious Weed Mapping, Monitoring and Education

In Storey County, and with cooperation from the Carson Water Subconservancy District, Nevada Department of Forestry, and Dayton Valley and Washoe-Storey Conservation Districts, there was implementation of a comprehensive program to eradicate invasive plant species throughout 6 Mile and 7 Mile Canyons. The objective of this program was to improve water quality and riparian habitats within the Carson River watershed management area. Focus of this program was directed to treating the three most invasive noxious weed species found in the area: 1) Perennial pepperweed (Tall whitetop); 2) Hoary cress; and 3) Russian knapweed. Methods of treatment included precise application of herbicides specifically engineered to target these species. Human labor force was also employed by the Nevada Department of Forestry to aid in weed eradication. Commencement of this project took place in early June of 2009 and continued through the remainder of the month. A second phase of the program, in which weeds will be sprayed and some vegetation will be manually removed, is expected to take place in early autumn of 2010. WSCD staff will map the effectiveness of herbicides used on the noxious weeds in 6 and 7 Mile Canyons.

During this last fiscal year, the District staff was also able to design an education and outreach program to bring noxious weeds education to the Storey County Elementary and Middle Schools. The top twelve noxious weeds in Nevada were discussed and a Weed Busters coloring book from the University of Nevada Cooperative Extension was given to each student.

Hidden Meadows Steamboat Creek Restoration Appraisal Study

Hidden Meadows is a newer development adjacent to Steamboat Creek. During development activities, ground water was encountered which resulted in the construction of a large pond. The landowners approached WSCD to address potential alternatives to the current standing water and mosquito problem. WSCD saw an opportunity to potentially route Steamboat Creek through the ponds in a wetland-type situation to provide a water quality improvement component, wildlife habitat and a more pleasing situation for landowners. The scope of this project was to assess the potential for developing wetlands and restored channels. Considering the geomorphology, groundwater conditions and other features of the area, WSCD will develop a plan for wetlands and stream restoration. The assessment addressed water quality, stream stability, vegetation, habitat creation and compatibility with surrounding land uses. Washoe Storey Conservation District and other stakeholders will be involved in evaluating the benefits and impacts of project alternatives and developing a recommended project.

Restricted funding and additional input from the U.S. Army Corps of the Engineers and from the Reno-Tahoe Airport Authority has enabled the Washoe-Storey Conservation District to collaborate with Washoe Regional Transportation Commission (RTC) as well as other stakeholders to further a stream restoration project. This funding was used to appraise the Hidden Meadows reach of Steamboat Creek to understand the engineering, environmental and institutional constraints, meet with relevant stakeholders, and identify potential funding sources. WSCD also plans to forge restoration efforts with the RTC SE Connector Project as well as work closely with the U.S. Army Corps of Engineers, the Hidden Meadows Home Owners Association

and other potential partners. In addition, WSCD is also currently discussing plans to renew the Nationwide 27 Permit and the in-lieu-fee program with the U.S. Army Corps of Engineers which will ultimately help with attaining funds for the implementation and mitigation of restoration projects along the Steamboat Creek.

Jumbo Grade Project

The Jumbo Grade Project consisted of the construction of the East Washoe Lake Jumbo Grade Channel Restoration Project from East Lake Boulevard downstream approximately 1730 feet. The work consisted of pollution control and erosion control measures. These provided prevention, control, and abatement of water and air pollution within the limits of the project and work to minimize damage to adjacent property and Washoe Lake, streams or other bodies of water.

Construction of Gabions, flow interruption from grout constructed weir and Reno Mattress laid in the creek bed have all shown to be in stable condition with little to no deterioration after 10 years of service and appear to be performing as designed and constructed. This project appears in all aspects to be successful and complete.

Development Plan Reviews

The Washoe-Storey Conservation District will continue to review Washoe County and Storey County development plans for revegetation mixtures that will help with soil suitability, water conservation and wildlife habitat improvements, as well as make recommendations including Low Impact Development (LID) designs that will ultimately reduce construction phase erosion, aid in sediment control and the improvement of water quality.

Capacity Building

Several new board members have joined the District Board over the last two years and are rapidly gaining knowledge and experience, as well as bringing diverse talents and experience to the District. A near term need is meeting to re-identify long term strategic objectives the Board should pursue, and how to make them actionable.

Noxious weeds, stream restoration, water quality and water control (water resources management) are high on our list. Specific problems needing more attention include boron and mercury in the waters and soils of Steamboat Creek, overgrazing and poor land use practices, and adverse effects of irrigation return water as well as stormwater runoff.

Because our District still contains significant remnants of an agricultural economy (ditches, farms, grazing lands, etc.), while in transition from rural to urban land use and demographics, the board is looking for public relations representation, preferably a corporate representative from a government agency.